

Wahlenbergia caryophylloides (Campanulaceae),
a new species from northern Australia

P.J. Smith

44 Hawkins Parade, Blaxland, New South Wales 2774

Abstract

Smith, P.J. *Wahlenbergia caryophylloides* (Campanulaceae), a new species from northern Australia. Nuytsia 7(1): 63-67 (1989). *Wahlenbergia caryophylloides* P.J. Smith is described. The species occurs in the wetter tropical regions of Queensland, Northern Territory and Western Australia.

A number of undescribed species of *Wahlenbergia* have become evident during my revision of the Australian members of the genus. The revision will be published in the near future. However, one species is described here for inclusion in the forthcoming "Flora of the Kimberley Region."

Herba annua, 13-85 cm alta, caule typice singulo, partibus superis glabrae et infernis \pm hirsutae. Folia opposita tum alterna secus caulem, elliptica tum anguste elliptica tum linearia secus caulem, 5-45 mm longa, 1-10 mm lata. Flores in cymis terminalibus, bracteis linearibus. Tubus floris hemisphaericus vel cylindricus, 1-2 mm longus.

Wahlenbergia caryophylloides P.J. Smith, sp. nov. (Figure 1)

Lobi calycis 5, anguste triangulares, 1.0-3.5 mm longi. Corolla campanulata, caerulea ad purpurea, interdum alba vel rosca, omnino glabra; tubo 2-8 mm longo; lobis 5, ellipticis, 1.0-6.5 mm longis, tubum aequantibus vel eo brevioribus. Stamina 5; filis trullatis ad obtrullatis, cum vel sine humeris protrudibus, 1.0-2.5 mm longis; antheris 1-4 mm longis. Ovarium 2- vel 3-loculatum; stylo 2.5-9.0 mm longo, incontracto, 2- vel 3-fido. Capsula hemisphaerica vel cylindrica, 2.0-6.5 mm longa.

Typus: Kennedy Road, 15 miles [25 km] N of Musgrave, Queensland, Aug. 1965, C.H. Gittins 994 (holo: NSW; iso: BRI).

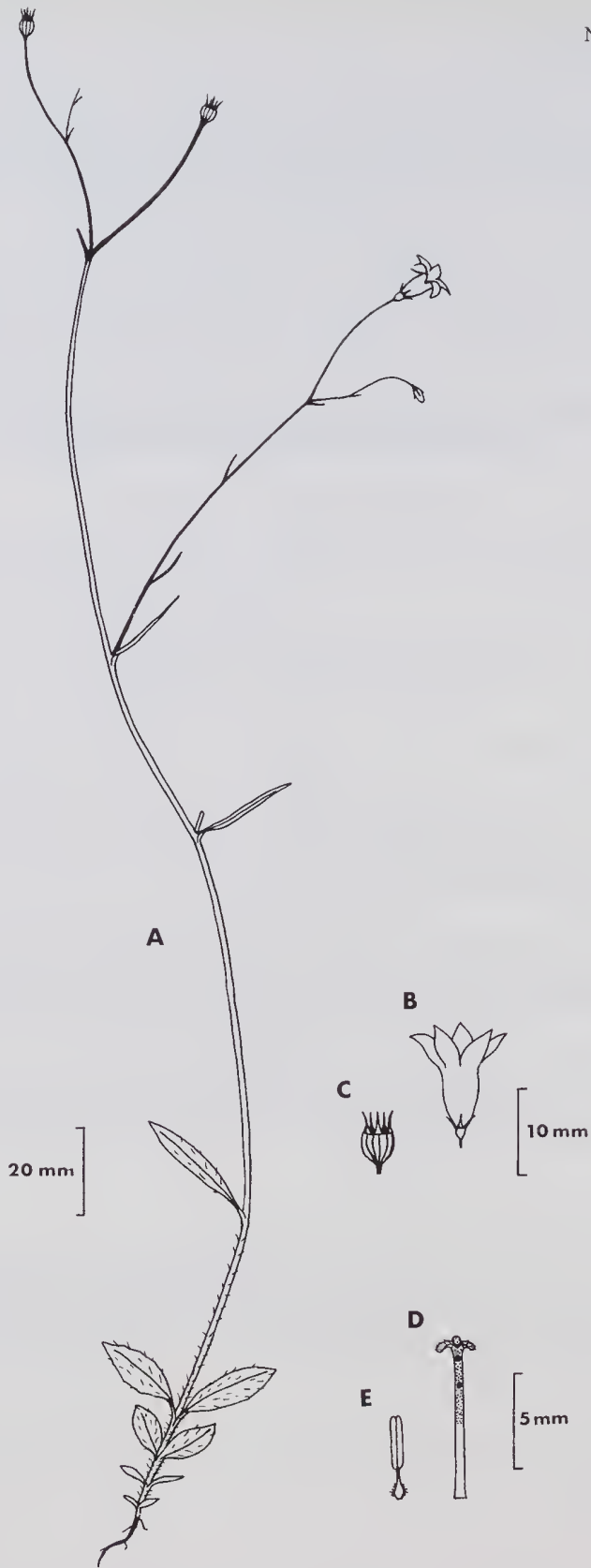


Figure 1. *Wahlenbergia caryophylloides*. A - Habit. B - Flower. C - Fruit. D - Style. E - Stamen. From C.H. Gittins 994.

Annual herb, erect or ascending, 13-85 cm tall, with one or rarely a few stems arising from a thin taproot. Upper parts glabrous, lower parts \pm hirsute; hairs simple, white, 0.1-1.5 mm long. *Stems* unbranched below the inflorescence or sometimes with a few lower branches, terete, lightly ridged with decurrent leaf margins. *Leaves* sessile, opposite, becoming alternate up the stem, elliptic (or sometimes the lowermost obovate), becoming narrowly elliptic then linear up the stem, 5-45 x 1-10 mm, lower leaves obtuse or acute, upper leaves acute or acuminate; margins usually flat and cartilaginous with small, distant callus-teeth. *Inflorescence* a terminal cyme with linear bracts 1-15 mm long. *Floral tube* hemispheric or cylindrical, 1-2 mm long, glabrous. *Calyx lobes* 5, \pm erect, narrowly triangular, 1.0-3.5 mm long, acuminate, glabrous. *Corolla* campanulate, blue to purple, sometimes white or pink, entirely glabrous; tube 2.8 x 1.0-3.5 mm; lobes 5, elliptic, shorter than or equal to the tube, 1.0-6.5 x 0.6-3.0 mm, acute. *Stamens* 5; filaments 1.0-2.5 mm long, upper section linear, 0.5-1.0 mm long, lower section trullate to obtusulate, 0.5-1.5 x 0.3-0.8 mm, ciliate on the upper margins, with or without protruding shoulders; anthers with 2 cylindrical cells, 1-4 mm long. *Ovary* inferior, 2- or 3-celled. *Style* 2.5-9.0 mm long, not constricted, the upper half covered with pollen-presenting hairs, with 1 or 2 glands below each stigmatic cleft; stigmatic lobes 2 or 3, 0.5-1.5 mm long. *Capsule* hemispheric or cylindrical, 2.0-6.5 x 1-3 mm, glabrous. *Seeds* numerous, compressed-ellipsoid, c. 0.4 mm long, dark brown at maturity, shiny.

Other specimens examined (selection from a total of 97 from AD, ADW, BRI, CANB, CBG, DNA, MEL, NSW, NT, PERTH and SYD). QUEENSLAND: Cook District: Badu Island, Torres Strait, S.T. Garnett 129 (BRI); Davics Creek Forestry Road, c. 15 miles [25 km] E of Mareeba, Atherton Tableland, R. Schodde 3315 (CANB, BRI, AD); North Kennedy District: Louisa Lake, c. 8 km S of Lyndhurst, M. Lazarides 8180 (CANB, BRI); near Pentland, S.T. Blake 19310 (BRI); Burke District: Circle Lagoon, 18° 02' S, 141° 48' E, L.A. Craven 4817 (CANB).

NORTHERN TERRITORY: Darwin & Gulf District: near Mt Saunders, Gove, N. Byrnes 2365 (NT, DNA, CANB); 8 miles [13.3 km] N of Mudginberri, N. Byrnes 819 (NT); Barkly Tableland: 17° 46' S, 137° 43' E, Barkly Tableland, A. Kanis 1717 (CANB, NT); Attack Creek, Barkly Tableland, A.C. Beaglehole 46306 (MEL).

WESTERN AUSTRALIA: Gardner District: 15 km W of Lake Argyle turnoff, Kimberleys, A.C. Beaglehole 3044 (MEL); Rocky Cove, Vansittart Bay, C.A. Gardner 1519 (PERTH); Blyxa Creek, 15° 48' S, 125° 20' E, A.S. George 12569 (PERTH); Fitzgerald District: Adcock Gorge, Kimberleys, A.C. Beaglehole 4196 (MEL); Dampier District: Camballin, Y. Power 845 (PERTH).

Distribution and habitat. (Figure 2.) Widespread in the wetter tropical regions of Queensland (Cook, North Kennedy and Burke Districts), Northern Territory (Darwin & Gulf District and Barkly Tableland) and Western Australia (Gardner, Fitzgerald and Dampier Districts). Often grows on the edges of swamps, lagoons and streams, but also found in eucalypt woodland in drier sites. A preference for sandy soils is indicated.

Flowering period. May to October, with one record in February.

Etymology. The specific epithet refers to the rather Caryophyllaceae-like appearance of this taxon.

Notes. *W. caryophylloides* was first recognised by Roger Carolin in the 1960s. It is characterised by a combination of annual habit, opposite, elliptic lower leaves, linear bracts, narrowly triangular calyx lobes, and corolla tube equal to or longer than the lobes. The annual habit and opposite, elliptic lower leaves suggest a relationship with the annual species of the *W. gracilentia* Lothian / *W. preissii* Vriese group of southern Australia. However, *W. caryophylloides* lacks the other characteristic (though not constant) features of that group, namely narrowly oblong calyx lobes and narrowly ovate bracts.



Figure 2. Distribution of *Wahlenbergia caryophylloides*.

It is generally possible to divide *W. caryophylloides* specimens into those with large flowers (corolla tube c. 7 mm long, lobes c. 6 mm long; e.g. *Gittins* 994, *Byrnes* 2365 and *Beaulehole* 4196) and those with small flowers (corolla tube c. 3 mm long, lobes c. 2 mm long; e.g. *Craven* 4817, *Kanis* 1717 and *Beaulehole* 3044). Both forms occur throughout the species' range and without obvious ecological separation.

Acknowledgements

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